

## Notes on Chinese Labiateæ.

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Kew.

THE following list comprises descriptions of new species, reductions and transfers of old ones, and, in some cases, notes explanatory of the views expressed. Exceptional opportunities have been afforded to the writer for the revision of the *Labiatae* of China by the bringing together at Kew of a splendid series of specimens from various herbaria of this and other countries. For these facilities his thanks are specially due to Sir David Prain, the Director of the Royal Botanic Gardens, Kew, who with great kindness has borrowed for him type specimens from Paris, Christiania, Berlin, St. Petersburg, and Florence, and who has allowed all the work to be done in the herbarium of Kew.

Kew Herbarium itself possesses what is without doubt the most valuable and probably also the most extensive collection of *Labiatae* extant, containing as it does the specimens actually used and annotated by Bentham as the foundation for his classical *Labiatarum Genera et Species* (1832-1835). The specimens, moreover, on which Hemsley based his exhaustive enumeration of Chinese *Labiatae* (1890), are in the Kew herbarium. The herbarium of the Natural History Museum was also consulted by the kind permission of the Keeper.

The writer's thanks are also very specially due to Professor Balfour, Regius Keeper of the Royal Botanic Garden, Edinburgh, for entrusting to him the whole of the invaluable collections of Chinese and Japanese Labiates in the Edinburgh Herbarium (some 864 sheets), and for sending them to him at Kew to compare with the material assembled there for the work.

To Mgr. Léveillé the writer is much indebted for the courtesy with which he has lent him type specimens of the numerous newly-described plants from the province of Kweichow, a region very sparsely represented in other herbaria, besides that of the *Société International de Géographie Botanique* at Le Mans (France).

The adjustment and, it is hoped, the simplification of the existing nomenclature of Chinese Labiates, of which these notes indicate the chief points, has been undertaken to prepare the way for the preparation of keys sufficiently practical to enable botanists, and especially those collecting the living plants in China, to determine the names of their finds. The drawing up of these

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keys will be immediately proceeded with, but in the meantime the return of material to the various herbaria and the rearrangement of the series at Kew, with numerous new species and readjustments of names, renders it convenient to publish these notes without delay.

*Ocimum aureoglandulosum*, Vaniot in Bull. Acad. Géogr. Bot. xiv (1904), 171. The type in Le Mans Herb.=*Caryopteris terniflora*, Maxim.

**Acrocephalus fruticosus**, Dunn, sp. nov., inter alias species habitu fruticoso distinctus.

*Frutex* 1-2-pedalis, ramosus, tenuis. *Rami* ut folia calycesque pube brevi crispula alba dense vestiti. *Folia* oblongo-elliptica, obtusa, basi cuneata, 0.6-1.1 cm. longa, chartacea, subitus alba, supra tenuiter puberula, margine leviter crenata, venis supra impressis subitus prominentibus, petiolo 1-2 mm. longo. *Flores* in capitulis terminalibus globosis 8-9 mm. latis dispositi, sessiles, 3-4 mm. longi, bracteolis linearibus paullo longiores. *Calyx* cylindricus, 10-nervius; dentes tubo aequilongi, lanceolati. *Corolla* lilacina, calyce bis longior, subglabra; tubus latus, vix exsertus; labia tubo aequilonga; superius leviter 3-4-lobum, erectum; inferius integrum, patens. *Stamina* exserta, declinata, aequilonga; antherae loculi confluentes. *Stylus* bifidus.

YUNNAN. Valley of the Yangtze below Pung-tzu-la. Dry limestone district. Elevation 9000 ft. September 1904. *Forrest*, 582.

*Orthosiphon Bodinieri*, Vaniot in Bull. Acad. Géogr. Bot. xiv (1904), 170. The type in Le Mans Herb.=*Plectranthus striatus*, Benth.

*O. Delavayi*, Léveillé in Fedde, Repert. Nov. Sp. ix. 218. The type in Paris Herb.=*Teucrium ornatum*, Hemsl.

*O. glabrescens*, Vaniot in Bull. Acad. Géogr. Bot. xiv (1904), 168. The type in Le Mans Herb.=*Plectranthus striatus*, Benth.

**O. marmoritis**, Dunn, comb. nov. Hance under *Plectranthus*.

*O. sinensis*, Hemsl. in Journ. Linn. Soc. xxvi (1890), 268. The type in Kew Herb.=*Plectranthus marmoritis*, Hance (1874)=*O. marmoritis*, Dunn. The species was described under different genera by Hance and Hemsley, and although, in the opinion of the writer, the latter was correct, Hance's trivial name has priority.

**Plectranthus angustifolius**, Dunn, sp. nov., foliis angustis, *P. Stracheyi*, Benth., propinquat, corollae tubo brevi distinguitur.

*Herba* perennis, simplex vel pauciramosa, 40-80 cm. alta.

*Caulis* brevissime puberulus. *Folia* sessilia, oblonga vel linearior, obtusa, basi cuneata, chartacea, scabrello-glandulosa, subglabra, supra dimidium anguste serrata. *Paniculae* terminales et rarius axillares, ad 25 cm. longae, 5 cm. latae, glanduloso-scabrellae. *Cymae* oppositae, 4–6-florae, pedunculis 15 cm. longis, bracteis lanceolatis breviter petiolatis integris 0.5 cm. longis. *Flores* 8–12 mm. longi; pedicelli graciles, calyce paullo breviores; bracteolae lineares, minutae. *Calyx* floris 2.5 mm. longus et latus; dentes erecto-patentes, tubo aequilongi, coerulentes, aequales, acuti; in fructu 8 mm. longus, quadrate reticulatus, tubo fere bis dentibus longiore. *Corolla* purpurea, glabra, tubo basi late gibboso, labiis 3–4 mm. longis aequalibus. *Nuculae* non visae.

HUPEH. Fang, *Wilson*, 2577.

YUNNAN. *Ducloux*, 274; Mengtze, grassy mountains, 5000–5500. Henry, 10,069, 10,069a; near Yunnan-sen, *Maire*, 2497, 2600.

*P. cardiophyllum*, Hemsl. in *Journ. Linn. Soc.* xxvi (1890), 269. Type in *Kew Herb.* = *Orthosiphon debilis*, Hemsl.

*P. carnosifolius*, Hemsl. l.c. 270. Type in *Kew Herb.* is rather to be associated with *Coleus* q.v.

*P. dichromophyllum*, Diels in *Engl. Jahrb.* xxix (1901), 562. Type in *Christiania Herb.* = *P. rubescens*, Hemsl.

**P. discolor**, Dunn, sp. nov. *P. rugosae*, Wall., affinis, foliis planis haud rugosis distincta.

*Frutex* parvus, ramis tenuibus primo tenuiter stellato-tomentosis. *Folia* ovata, apice rotundata, basi abrupte breviter acuminata; 0.8–1.5 cm. longa, papyracea, subtus albo-stellato-tomentosa, supra glabra, integra vel majora pauci-crenata; petioli laminis bis breviores. *Flores* in cymis parvis axillaribus trifloris, 6 mm. longi, pedunculis pedicellisque 2 mm. longis. *Calyx* campanulatus, 2.5 mm. longus, 10-nervius, tenuiter tomentosus; dentes subaequales, tubo paullo breviores, lanceolati; calyx fructifer 4 mm. longus, deflexus, aliter similis. *Corolla* coerulea, paullo puberula; tubus lobis paullo longior, ima basi subito contracta, itaque gibbosa; labium superius erectum, basi contractum; inferius patens, trilobum. *Stamina* paullo exserta. *Nuculae* brunneae, laeves.

W. SZECHUEN. Min Valley, Aug. 1903, at 4–9000 ft., *Wilson*, 4321, 4322; between Tachienlu and Chengtu, October 1904, *Hosie*.

**P. eriocalyx**, Dunn, sp. nov., a speciebus affinibus calycibus lanatis distincta.

*Herba* ad 2 m. alta vel nonnunquam inferius lignosa, stolonifera, caule brevissime adpresso pubescente, rubescente. *Folia*

ovata, apice gradatim, basi abrupte acuminata, 6–12 cm. longa, praeter venas subtus adpresso pubescentes glabra, serrata; petioli infra partem alatam 0.5–1.0 cm. longi. *Paniculae* saepe angustae, foliosae, terminales, 25–35 cm. longae, ramis autem inferioribus elongatis nonnunquam majis dilatatae. *Cymae* 1.5–2 cm. longae, multiflorae, pedunculis 0.5 cm. longis, bracteis lanceolatis integris pedunculis brevioribus. *Flores* 6 mm. longi; pedicelli calyce breviores; bracteolae parvae, lineares. *Calyx* campanulatus, 1.5 mm. longus, primo lanatus, tarde glabrior; dentes triangulares, acuti, tubo paullo breviores. *Corolla* lavandulacea, extus pubescens; labium superius inferiori tuboque paullo longius.

SZECHUEN. Mt. Omi, October 1904. *Wilson*, 5125.

YUNNAN. Valley of Yangtse, between Chi-tien and Chin-ho, elevation of 6–7000 ft., October 1904, *Forrest*, 587; near Yunnan-sen, *Maire*, 1599, 2024; sandy wastes on mountains near Mengtze, September 1893, 5500 ft., *Hancock*, 73; Mengtze at 4500 ft., *Henry*, 9811.

*P. Esquiriolii*, Léveillé in Fedde, *Repert. Nov. Sp.* ix, 247. Type in *Le Mans Herb.* = *P. striatus*, Benth.

*P. Gerardianus*, Benth. in Wall. *Pl. As. Rar.* ii, 17 = *P. striatus*, Benth. l.c. The types in *Kew Herb.* are connected by a continuous series of gradations with regard to their distinguishing characters.

**P. grosseserratus**, Dunn, sp. nov. *P. excisae*, Maxim., affinis foliis sessilibus a typo distincta, floribus axillaribus cymosis, a var. *racemoso*, Dunn distincta.

*Herba* ramosa, 0.5 m. alta, ubique praeter corollam et genitalia pilis sparsis vestita. *Folia* late ovata, sessilia, basi abrupte in alam abeuntia, apice acuminata, 10–13 cm. longa, papyracea, grosse serrata. *Panicula* longa, angusta; cymae laxae, saepe triflorae, breviter pedunculatae, 1.5 cm. longae; inferiores breviores, superiores longiores quam bracteae. *Flores* 6–7 mm. longi; pedicelli 5 mm. longi, basi bracteolis linearibus provisi. *Calyx* late campanulatus, 4 mm. longus; tubus dentibus lanceolatis paullo brevior. *Corolla* basi subito contracta, itaque tubo gibboso; labia tubo paullo breviora; superius erectum, inferius brevius quadrilobum. *Stamina* inclusa.

SZECHUEN. Wushan, *Wilson*, 1429. Cult. in *Hort. Veitch*.

*P. Labordei*, Diels in *Notes Bot. Gard. Edin.* xxxi (1912), 47. Type in *Edinburgh Herb.* = *Elsholtzia rugulosa*, Hemsl.

*P. leptobotrys*, Diels in *Engl. Jahrb.* xxix (1901), 561. Type in *Christiania Herb.* = *P. Coetsa*, Don.

*P. leucanthus*, Diels in *Notes Bot. Gard. Edin.* xxv (1912), 230. Type in *Edinburgh Herb.* = *P. phyllopodus*, Diels.

**P. leucophyllus**, Dunn, sp. nov. *P. rugoso*, Wall., affinis, calycis fructiferi dentibus tubo 4-plo brevioribus distincta.

*Herba* mediocris, ramosa, ubique praeter florum interiora pube alba brevi densa stellata vestita, ad 1.2 m. alta. *Folia* ovata, ex basi rotundata vel obtusa, ad apicem saepe obtusam angustata, 4–5 cm. longa, chartacea, crebre crenata; petiolus 1–1.5 cm. longus. *Paniculae* longae, angustae, nonnunquam foliosae. *Cymae* densae, haud continuae, 8–10 mm. longae, foliis saepe bracteiformibus saepius superatae, breviter pedunculatae; bracteae parvae. *Flores*, staminibus exclusis, 6 mm. longi, primo subsessiles, tandem breviter pedicellati. *Calyx* cylindricus, curvatus, 4 mm. longus; tubus dentibus equalibus 4–5-plo longior. *Corolla* pallide purpurea, imo basi subito contracta, calycem paullo superans; labia tubo bis breviora, superius erectum, inferius patulum, quadrifidum. *Stamina* exserta.

SZECHUEN. Tung Valley, 1200 m., July 1903, *Wilson*, 4319; between Tachienlu and Chengtu, October 1904, *Hosie*.

**P. macrocalyx**, Dunn, sp. nov. *P. calcarato*, Hemsl. affinis, corolla breviter lateque calcarata distincta.

*Herba* magna, praeter caulem foliorum venas pedicellos corollamque brevissime puberulos glabra. *Folia* ovata, apice basique acuminata, 7–9 cm. longa, chartacea, crenato-serrata; petioli 0.5 cm. longi. *Paniculae* racemiformes, axillares, 6–10 cm. longae; cymae 3–5-florae, 2 cm. longae, bracteas lineares excedentes; pedunculus 3–5 mm. longus. *Flores* 12 mm. longi, pedicello gracili 4-plo longiores. *Calyx* sub anthesi bilabiatus horizontaliter hians, dentibus tribus superioribus alte coalitis prorsum extensis, duobus inferioribus similariter coalitis deorsum extensis, itaque bis latior quam longus, 1.5 mm. longus, 3 mm. latus, in fructu late campanulatus, 8 mm. longus, 6 mm. latus, chartaceus, 10-nervius, reticulatus; tubus 5 mm. longus, lobis obtusis apiculatis. *Corolla* cum calcare obtuso 2 mm. longo, 10 mm. longa, 2 mm. lata; labia 3–4 mm. longa; superius erectum, concavum, latum; inferius patulum, quadrifidum. *Stamina* inclusa. *Nuculæ* sphaericæ, atrae, 1.5 mm. latae.

CHEKIANG, *Hickin*.

FUKIEN. Foochow, 7th November 1897, *Carles*, 734.

*P. marmoritis*, Hance in *Journ. Bot.* 1874, 53. Type in Kew Herb. = *Orthosiphon marmoritis*, Dunn.

*P. mosifolius*, Léveillé in *Fedde, Repert. Nov. Sp.* ix, 247 (*sphalm.* *mostifolius*). Type in *Le Mans Herb.* = *P. nervosus*, Hemsl.

*P. nudipes*, Hemsl. in *Journ. Linn. Soc.* xxvi (1890), 272. Type in Kew Herb. is a *Hancea* q.v.

**P. Prainianus**, Dunn, nom. nov. Léveillé under *Hancea*.

*P. racemosus*, Hemsl. in Journ. Linn. Soc. xxvi (1890), 273 = *P. excisus*, Maxim., var. *racemosus*, Dunn. The series of specimens now in the Kew Herbarium does not admit of any practical demarcation between *P. racemosus*, Hemsl. and *P. excisus*, Maxim.

*P. sinensis*, Miq. in Journ. de Bot. Néerl. i, 115. The description does not distinguish it from the rather variable *P. amethystoides*, Benth., which is frequent in the region in which Miquel's plant was gathered.

*P. Tatei*, Hemsl. in Journ. Linn. Soc. xxvi (1890), 274. Type in Kew Herb. = *striatus*, Benth.

*P. veronicifolius*, Hance in Journ. Bot. 1885 (Nov.) 327. Type in Brit. Mus. Herb. = *P. Stracheyi*, Benth. (August 1885).

**Coleus bracteatus**, Dunn, sp. nov. *C. malabarico*, Benth., affinis, corollae labio superiore brevi erecto distincta.

*Herba* perennis, 30–40 cm. alta; *caulis* pauciramosa, puberula, carnosa, fragilis. *Folia* ovata, cordata, acuta, crenata, 6–8 cm. longa, subcarnosa, sparse puberula. *Petioli* laminis bis breviores vel aequilongi. *Cymae* breviter pedunculatae, distantes, bracteatae, paniculam 10–15 cm. longam, 3 cm. latam formantes; bracteae rotundatae, 1–1.5 cm. longae, integrae, sessiles. *Flores* 1–1.2 cm. longi; pedicelli ut pedunculi corollaeque puberuli. *Calyx* campanulatus, membranaceus, 2 mm. longus, subglaber; tubus dentibus aequilongus; dentes 4, subaequilongi; supremus ovatus, acutus, decurrens, in fructu reflexus; alii lanceolati, acuti. *Corolla* tubulosa, purpurea, puberula, paullo supra calycem declinata, altius subito refracta, erecta, puberula; labia tubo 6–8-plo breviora; superius erectum, concavum, intus lanatum; inferius breviter 3-lobum. *Stamina* brevia, declinata, fauci inserta brevissime cohaerentia; antherae disciformes, loculis confluentibus. *Stylus* equaliter bifidus. *Nuculae* pallidae, areola parva basilari.

YUNNAN. Szemao, W. Mountains, at 5000 ft., Henry, 12537; Puerh at 4500 ft., Henry, 13498.

**C. carnosifolius**, Dunn, nom. nov. Hemsley under *Plectranthus*.

**C. Esquirolii**, Dunn, nom. nov. (*Calamintha Esquirolii*, Léveillé in Fedde, Repert. Nov. sp. viii (1910), 450.) *Coleo atropurpureo*, Benth., affinis, tubo corollae longiore gracilioreque distincta.

*Herba* 30–60 cm. alta, succosissima. *Rhizoma* breve, crassum, caules paucos stolonesque graciles emittens. *Caulis* ascendens, ut folia carnosulus et brevissime puberulus. *Folia* rotundovata, obtusa, basi truncata, paullo cordata, subito in petiolas

acuminata, 4–6 cm. longa, grosse undulato-crenata, petiolis aequilongis. *Panicula terminalis*, 15–20 cm. longus, 4 cm. latus, cylindricus. *Verticillastri* laxi, continui, bracteis parvis caducis. *Cymae* binae, pedunculo 4–6 mm. longo ut pedicellis calycibusque glanduloso puberuloque. *Flores* 8 mm. longi; pedicelli calycibus aequilongi, bracteolis brevibus caducis. *Calyx* in anthesi fructuque membranaceus, graciliter 10–nervius, 4–5 mm. longus, tubo 3 mm. longo; dens supremus tubo circiter dimidio brevior, late triangularis, acutus; caeteri aequilongi, angusti. *Corolla* purpurea, tubo basi refracto 6 mm. longo, fauce ampliato, labiis aequilongis, 2–3 mm. longis. *Stamina* inclusa; filamenta vix coalita. *Nuculae* atrae, lucidae.

KWEICHOW. Shin-gny-hien, chemin pierreux de Sy-koua-tong, November 1906, *Esquirol*, 1058 (type).

YUNNAN. Mengtze, in ravines among dry stones at 4600 ft., S.E. mountains, 6000 ft., *Henry*, 9222; on rocks in shady woods, 4600–5000 ft., *Henry*, 9222A; rocks, *Hancock*, 235.

FORMOSA. Bankinsing Mts., *Henry*, 1674.

*C. wulfenioides*, Diels in Notes Bot. Gard. Edin. xxv (1912), 231. Type in Edinburgh Herb.=*Orthosiphon rubicundus*, Benth.

*Pogostemon Cypriani*, Pamp. in Nuov. Giorn. Bot. Ital. n.s. xvii (1910), 708. Type in the Florence Herb.=*Elsholtzia communis*, Diels.

**Pogostemon Dielsianus**, Dunn, sp. nov. A *P. elsholtzoidi*, Benth., floribus majoribus corollaque majis exserta; a *P. tuberculoso*, Benth., pube non stellata differt, aliter ad has species approximat.

*Frutex* ramosus, 1.3–2.7 m. altus, caulis cylindricis glabris siccitate striatis. *Folia* lanceolata, apice basique gradatim acuminata, 10–14 cm. longa, chartacea, sparse strigoso-puberula, serrata; petoli infra acumen inferius laminae 0.5–1.0 cm. longi. *Paniculae* terminales, 4.0 cm. longae, foliosae, praeter corollas dense adpresso pubescentes; *verticillastri* continui; cymae sessiles, 5–7-florae, 1–1.5 cm. longae, bracteae ut bracteolae calycibus breviores. *Flores* sessiles, 1.25 cm. longi. *Calyx* cylindricus, 3.5–4 mm. longus, 1–1.2 mm. latus, tubo 4–5-plo dentibus acutis longiore. *Corolla* rosea, 8 mm. longa, tubo cylindrico ad faucem paullo ampliato, lobis subaequalibus. *Stamina* exserta, corollam fere bis superantia, medio lanata.

N.W. YUNNAN. Amongst scrub on dry rocky hillsides, valley of the Salwen between Shih-chi-ti and Hsia-ku-ti, Salwen-Irrawady divide. Lat. 26° 20' N. Alt. 5–6000 ft. November 1905. *Forrest*, 875.

**P. nigrescens**, Dunn, sp. nov. *P. strigoso*, Benth., affinis, pube non dense strigosa distincta.

*Herba annua*, 1-2 pedalis, erecta, parce ramosa; caulis praeter summum ut folia pilis sparsis laxis vestitus. *Folia* ovata, obtusa, basi breviter acuminata, 6-12 cm. longa, papyracea, bicrenata, petiolo 4-plo longiora. *Racemi* terminales, in siccitate nigrescentes, ad 10 cm. longi, 1-1.5 cm. lati; verticillastri praeter basales contigui, infimi pauci bracteis parvis suffulti; cymae sessiles. *Flores* cum genitalibus 5.5 mm. longi, pedicelli 1-2 mm. longi, bracteolis linearibus suffulti, ut eae calycesque rachesque racemorum pilis albis brevibus dense vestiti. *Calyx* campanulatus, 3 mm. longus, tubus dentibus linearibus 5 aequalibus bis longior. *Corolla* rubrida vel purpurea, 4 mm. longa, lobis brevibus erectis aequalibus. *Stamina* ut stylus exserta, filamentis paullo in medio hirsutis.

YUNNAN. Shady woods about Szemao and Mengtze, *Henry*, 9082 (Mengtze), 11,174 (Feng-chen-lin Mts.), 12,563 (Szemao).

*Dysophylla Esquirolii*, Léveillé in Fedde, Repert. Nov. Sp. x, 476. Type in Le Mans Herb. = *D. verticillata*, Benth.

*D. Martini*, Vaniot in Bull. Acad. Géogr. Bot. xiv (1904), 178. Type in Le Mans Herb. = *D. linearis*, Benth.

*Elsholtzia alopecuroides*, Léveillé et Vaniot in Fedde, Repert. Nov. Sp. viii (1910), 424. Type in Le Mans Herb. = *E. communis*, Diels.

*E. Argyi*, Léveillé in Fedde, Repert. Nov. Sp. viii (1910), 425. Type in Le Mans Herb. = *E. cristata*, Willd.

*E. Cavaleriei*, Léveillé et Vaniot in Fedde, Repert. Nov. Sp. viii (1910), 424. Type in Le Mans Herb. = *Leucosceptrum sinense*, Hemsl.

*E. Dielsii*, Léveillé l.c. ix, 218. Type in Paris Herb. = *E. polystachya*, Benth.

*E. Feddei*, Léveillé l.c. Type in Paris Herb. = *E. cristata*, Willd.

*E. Labordei*, Vaniot in Bull. Acad. Géogr. Bot. xiv (1904), 177. Type in Paris Herb. = *E. rugulosa*, Hemsl.

*E. Lychnitis*, Léveillé et Vaniot in Fedde, Repert. Nov. Sp. viii (1910), 425. Type in Le Mans Herb. = *Plectranthus ternifolius*, Don.

*E. monostachys*, Léveillé et Vaniot l.c. 424. Type in Le Mans Herb. = *Lophanthus rugosus*, Fisch. et Mey.

**Elsholtzia Myosurus**, Dunn, sp. nov. A speciebus affinibus fruticosis spicis caudiformibus foliisque tomentellis distincta.

*Frutex aromaticus*, 1-2 m. altus, caule brevissime puberulo. *Folia* sessilia, oblanceolata, acuta, basi cuneata, crebre crenato-serrata, chartacea, supra sparse et brevissime glanduloso-puberula, subtus ut calyx et corolla dense sed brevissime albo-tomentella, paullo reticulata. *Spicae* ramos terminantes, erectae, caudi-

formes, 10-15 cm. longae, 5 mm. latae; verticillastri praeter paucos inferiores distinctos, contingui. *Cymae* sessiles, multiflorae, compactae; bracteae bracteolaeque lineares, integrae, floribus breviores. *Flores* 3 mm. longi, sessiles. *Calyx* angustus, 2 mm. longus; tubus 1 mm. longus; dens supremus 7 mm. longus, anguste triangularis, acutus, laterales et infimi longiores, conformes. *Corolla* opace lutea, 3 mm. longa, tubo cylindrico paullo exerto, labiis brevibus 0.5 mm. longis. *Stylus* tandem longe exsertus.

YUNNAN. East flank of Tali range, in dry, open situations among scrub at 7-8000 ft. Lat. 25° 40' N. *Forrest*, 7220. August 1910.

**E. ochroleuca**, Dunn. *E. blanda*, Benth., affinis, calycis dentibus brevibus in fructu apertis distincta, ab *E. polystachya*, Benth. corollis brevibus lanatis diversa.

*Frutex* 2-3-pedalis; caules venaeque sub foliis pilis albis vestiti. *Folia* ovata, apice obtusa, basi acuminata, 6-8 cm. longa, chartacea, subitus pallida, crenato-serrata; petioli 1-2 cm. longi. *Paniculae* angustissimae, terminales vel paniculatae, ad 12 cm. longae, 7-8 mm. latae. *Cymae* contiguae, subsessiles; bracteae minutae, lanceolatae. *Flores* 3 mm. longi, breviter pedicellati, bracteolae minutae, caducae. *Calyx* cylindricus, 1.5 mm. longus, breviter lanatus; dentes aequales, tubo bis breviores. *Corolla* ochroleuca, 2.5 mm. longa, extus paulo lanata, in labia 2 breviter lobata; superius erectum, inferius trilobatum patulum. *Genitalia* vix exserta.

YUNNAN. Mengtze at 4700 ft., *Henry*, 9136.

*E. Souliei*, Léveillé in Fedde, Repert. Nov. Sp. ix, 218 (non p. 248). Type in Paris Herb. = *E. cristata*, Willd.

*E. Souliei*, Léveillé l.c. 248 (non 218). Type in Le Mans Herb. = *E. polystachya*, Benth.

*E. tristis*, Léveillé et Vaniot l.c. viii (1910), 424. Type in Le Mans Herb. = *E. polystachya*, Benth.

**Perilla avium**, Dunn, sp. nov. A *P. nankinensi*, Decne. calycibus 1.2 cm. longis seminibusque albis distincta.

*Herba* magna, robusta, ramosa, ad 3 m. alta, caule hirto puberulo vel subglabro. *Folia* late ovata, acuta, basi rotundata vel breviter acuminata, 9-12 cm. longa, papyracea, praeter venis hirtulas glabra, serrata vel crenato-serrata; petioli lamina paullo breviores. *Racemi* terminales et axillares, 7-10 cm. longi, in fructu ad 20 cm. longi. *Fasciculi* 2-4-flori, oppositi; bracteae rotundatae, floribus paullo breviores. *Flores* 4 mm. longi, breviter pedicellati. *Calyx* urceolatus, basi barbatus; dentes 5, tubo aequilongi, superiores 3 medio coaliti, inferiores angusti, acuti; calyx fructiferus ad 1.4 cm. auctus, papyraceus,

fortiter 10-nervius, aliter similis. *Corolla* alba, calyx vix longior, apice breviter bilabiata, antice barbata. *Nuculae* 2.2 mm. diam. globosae, albae, alte reticulatae.

JAPAN. Cult. under name of Ygoma (fide *Savatier*) ; Nagasaki *Maximowicz*.

CHINA. CHILI ; Peking. *Bretschneider* 577 ; Paushan (Peking). "Sutzu, bird seed and oil plant," October 1, 1886, *Carles*, 140.

FOKIEN. Foochow, *Carles*, 733.

YUNNAN. "S.W. China, Shu ma, seeds used in cooking," *Bourne*, 2 ; Salwen and Irrawady basins, lat.  $25^{\circ}$  to  $27^{\circ}$  N. at 4-7000 ft. and in Upper Burmah, grown by natives (Shans and Lissoos) for an oil which is expressed from the seeds and used for cooking, *Forrest*, 871 ; Yunnan-sen, *Maire* 25, 734, 2614.

*P. Cavalierii*, Léveillé in Fedde, Repert. Nov. Sp. viii (1910), 425. Type in Le Mans Herb. = *P. nankinensis*, Hemsl.

*Mosla Argyi*, Léveillé, l.c. ix, 247. Type in Le Mans Herb. = *M. lanceolata*, Benth.

*M. Fordii*, Maxim. in Mél. Biol. xii, 525. The type in the Kew Herb. = *M. chinensis*, Maxim.

The latter was described from specimens which Augustinowicz gathered near Foochow, and the type specimens are in the St. Petersburg herbarium. Maximowicz afterwards received specimens of an allied form gathered by Ford in the Lo-fou-shan and described them as *M. Fordii*, relying on the silkiness of the floral bracts and their abruptly acuminate tips to distinguish them from the Foochow plant. The series of specimens in the Edinburgh herbarium together with those at Kew have now been compared with Maximowicz's type specimens, accompanied by beautiful drawings, courteously lent to Kew for the purpose, and it is clear that specific distinction should no longer be maintained between the two forms. *Carles* 725 from Foochow is about intermediate between the two types, having the silkiness of *M. Fordii*, with the bracts of *M. chinensis*.

*M. punctata*, Maxim. = *dianthera*, Maxim.

The writer does not hesitate to acknowledge, being in this respect in company with Hemsley, that he is unable to sort the material of *Mosla* entirely according to the proposals of Maximowicz. With the exception of the size of the bracts, which almost cover the flowers in *M. chinensis*, no constant characters have been found besides those of the seeds. The two forms here referred to (*M. punctata* and *M. dianthera*) have seeds of the same character, loosely and shallowly reticulate, and in the large series of specimens of them now collected at Kew from

different herbaria no constant character can be found such as would render a specific separation useful or indeed possible.

*M. soochouensis*, Matsuda, must from its description be very close to, if not conspecific with, *M. dianthera*, Maxim.

*Lycopus Cavaleriei*, Léveillé in Fedde, Repert. Nov. Sp. viii (1910), 423. Type in Le Mans Herb. = *L. europaeus*, Linn.

*Calamintha albiflora*, Vaniot in Bull. Acad. Géogr. Bot. xiv (1904), 181. Type in Le Mans Herb. = *Nepeta Cataria*, L.

*C. Argyi*, Léveillé l.c. Type in Le Mans Herb. = *Mosla lanceolata*, Benth.

*C. Cavaleriei*, Léveillé l.c. 424. Type in Le Mans Herb. = *Melissa parviflora*, Benth.

*C. chinensis*, Benth. = *C. Clinopodium*, Benth.

Nearly all the Chinese Calaminthas belong to the group with long subulate calyx teeth, and the effort to find characters among them sufficiently constant to warrant specific differentiation has proved ineffectual, the writer being forced to the conclusion that the numerous extreme forms which have at different times received specific names can only be treated as varieties connected by a series of intermediates. The chief forms occurring in China which have received specific names are :—

(1) *C. umbrosa*, Benth. It is very common in the Talisch Mountains, where it was first distinguished as a species by Bieberstein (*Melissa umbrosa*, Bieb.). Thence its range extends through Afghanistan and the Himalayas, to the Peninsula of India and Ceylon. (2) *C. repens*, Benth., from India. (3) *C. chinensis*, Benth., from China. (4) *C. Clinopodium*, Benth. (*Clinopodium vulgare*, Linn.), from the greater part of the N. Temperate Zone.

Bentham at first placed these four species together as a section, *Clinopodium*, under *Melissa*, afterwards referring them to *Calamintha*. Hooker, in his Flora of British India, reduced them to two, *C. Clinopodium* and *C. umbrosa*, noting that they were in some states difficult to distinguish apart. The writer ventures to make a further step and place all under *C. Clinopodium*.

*C. clipeata*, Vaniot in Bull. Acad. Géogr. Bot. xiv (1904), 184. Type in Le Mans Herb. = *Mosla chinensis*, Maxim.

*C. confinis*, Hance in Journ. Bot. 1868, 331. Type in Kew Herb. = *C. gracilis*, Benth.

*C. discolor*, Diels in Notes Bot. Gard. Edin. xxv (1912), 232. Type in Edinburgh Herb. = *C. Clinopodium*, Benth.

*C. Esquirolii*, Léveillé in Fedde, Repert. Nov. Sp. viii (1910), 450. Type in Le Mans Herb. is a *Coleus*. (See *Coleus Esquirolii*, Dunn.)

*C. polyccephala*, Van. l.c. 183. Type in Le Mans Herb. = *C. Clinopodium*, Benth.

*C. radicans*, Van. l.c. 182. Type in Le Mans Herb. = *C. gracilis*, Benth.

*C. tsacapanensis*, Léveillé l.c. 423. Type in Le Mans Herb. = *C. Clinopodium*, Benth.

*C. umbrosa*, Benth. in DC. Prodr. xii, 232. Type in Kew Herb. = *C. Clinopodium*, Benth.

*Salvia anomala*, Van. l.c. 190. Type in Le Mans Herb. = *S. miltiorrhiza*, Bunge.

*S. betonicoides*, Léveillé l.c. 421. Type in Le Mans Herb. = *S. japonica*, Thunb.

*S. Blinii*, Léveillé l.c. ix, 219. Type in Le Mans Herb. = *S. brevilabra*, Franch.

*S. Bodinieri*, Van. l.c. 191. Type in Le Mans Herb. = *S. yunnanensis*, C. H. Wright.

*S. Cavalieriei*, Léveillé in Fedde, Repert. Nov. Sp. viii (1910), 422. Type in Le Mans Herb. = *S. japonica*, Thunb.

*S. Charbonnelii*, Léveillé l.c. ix, 220. Type in Le Mans Herb. = *S. miltiorrhiza*, Bunge.

**Salvia cynica**, Dunn, sp. nov. *S. glutinosae*, L., comparabilis sed labio corollae superiore recto.

*Herba* perennis, 30–50 cm. alta. *Caulis* foliaque utrinque sparse scabri. *Folia* circumscriptio rotundata vel late ovata, obtuse acuminata, basi cordato-hastato, basalia 15 cm. longa, superiora minora, papyracea, conspicue bicrenata; petioli inferiorum ad 30 cm. longi, supremorum breves. *Paniculae* saepissime terminales, ad 20 cm. longae. *Flores* 3–5-nim approximati, 3.5–4 cm. longi, pedicellis 5 mm. longis; bracteae 1 cm. longae. *Calyx* anguste campanulatus, membranaceus, 1.7–2.0 cm. longus, cum partibus aliis inflorescentiae laxe puberulus; dentes breves, lati, 2–3 mm. longi, superiores 2 coaliti in unum biapiculatum; 3 inferiores ovati, apiculati. *Corolla* lutea, subglabra; tubus rectus, 1 cm. latus, labiis 3–4-plo longior; labium superius rectum, paullo concavum, inferius aequilongum, erecto-patens, trilobum, margine amborum basi revoluto flori faciem canis pugnaturi dante. *Stamina* inclusa. *Stylus* bifidus.

**SZECHÜEN.** Ta-chien-lu, 9000–13,500 ft. *Pratt*, 71. Mt. Wu (Wushan) at 6500 ft. *Wilson*, 4342.

*S. Delavayi*, Léveillé in Fedde, Repert. Nov. Sp. ix, 220, Type in Paris Herb. = *S. japonica*, Thunb.

*S. Esquirolii*, Léveillé l.c. viii, 421. Type in Le Mans Herb. = *S. yunnanensis*, C. H. Wright.

*S. Fargesii*, Léveillé l.c. ix, 220. Type in Paris Herb. = *S. Maximowicziana*, Hemsl.

*S. flava*, Forrest ex Diels in Notes Edin. Bot. Gard. xxv, 235. Type in Edinburgh Herb. = *S. Bulleyana*, Diels.

*S. Forrestii*, Diels l.c. 235. Type in Edinburgh Herb. = *S. campanulata*, Wall.

*S. hylocharis*, Diels l.c. 236. Type in Edinburgh Herb. = *S. campanulata*, Wall.

*S. Mandarinorum*, Diels in Engl. Jahrb. xxix, 557. Type in Christiania Herb. = *S. Przewalskii*, Maxim.

*S. Marretii*, Léveillé l.c. 220. Type in Le Mans Herb. = *S. tricuspis*, Franch.

*S. Piazeskii*, Maxim. in Mél. Biol. xi, 304. Type in St. Petersburg Herb. = *S. japonica*, Thunb.

*S. Prattii*, Hemsl. in Journ. Linn. Soc. xxix (1892), 316. Type in Kew Herb. = *S. hians*, Royle.

*S. Prionitis*, Hance in Journ. Bot. 1870, 74. Type in Kew Herb. = *S. japonica*, Thunb.

*S. scapiformis*, Hance l.c. 1885, 368. Type in Kew Herb. = *S. japonica*, Thunb.

*S. tatsiensis*, Franch in Bull. Soc. Philom. Par. sér. 8, iii, 3 (1891) 149. Type in Paris Herb. = *S. Przewalskii*, Maxim.

*S. thibetica*, Léveillé in Fedde, Repert. Nov. Sp. ix, 219. Type in Kew Herb. = *S. Przewalskii*, Maxim.

*S. tuberifera*, Léveillé l.c. viii (1910), 421. Type in Le Mans Herb. = *S. japonica*, Thunb.

*Nepeta Bodinieri*, Vaniot in Bull. Acad. Géogr. Bot. xiv (1904), 172. Type in Le Mans Herb. = *N. Cataria*, L.

*N. coerulescens*, Maxim. in Mél. Biol. xi, 306. Type in St. Petersburg Herb. is a *Dracocephalum*, q.v.

*N. macrantha*, Fisch. Hort. Gorenk. = *Dracocephalum sibiricum*, L.

*N. Prattii*, Léveillé in Fedde, Repert. Nov. Sp. ix, 245. Type in Kew Herb. = *Dracocephalum sibiricum*, L.

*N. Souliei*, Léveillé l.c. 221. Type in Kew Herb. = *Dracocephalum sibiricum*, L.

*N. Stewartiana*, Diels in Notes Bot. Gard. Edin. xxv (1912), 237. Type in Edinburgh Herb. = *Dracocephalum Stewartianum*, q.v.

*N. tenuiflora*, Diels. l.c. 237. Type in Edinburgh Herb. is a *Dracocephalum*, q.v.

*N. Vaniotiana*, Léveillé l.c. 220. Type in Le Mans Herb. = *N. lavandulacea*, L.

*N. Veitchii*, Duthie in Gard. Chron. 1906, ii, 334. Type in Kew Herb. is a *Dracocephalum*, q.v.

*N. Wilsoni*, Duthie l.c. Type in Kew Herb. is a *Dracocephalum*, q.v.

*Dracocephalum bullatum*, Forrest ex Diels. in Notes Bot. Gard.

Edin. xxv. (1912) 238. Type in Edinburgh Herb. = *D. speciosum*, Benth.

*D. Cavalieriei*, *Esquirolii*, *Kaitcheense*, *pinfacense* and *stachydiolium*, Léveillé in Fedde, Repert. Nov. Sp. viii (1910), 442. Types in Le Mans Herb. = *D. urticifolium*, Miq.

**D. coerulescens**, Dunn, nom. nov. *Nepeta coerulescens*, Maxim.

*D. Fargesii*, Léveillé in Fedde, Repert. Nov. Sp. ix, 246. Type in Le Mans Herb. = *D. urticifolium*, Miq.

*D. Henryi*, Hemsl. in Journ. Linn. Soc. xxvi, 291. Type in Kew Herb. = *D. urticifolium*, Miq.

*D. radicans* et *D. simplex*, Van. in Bull. Acad. Géogr. Bot. xiv (1904), 179, 180. Types in Le Mans Herb. = *D. urticifolium*, Miq.

**D. Stewartianum**, Dunn, nom. nov. *Nepeta Stewartiana*, Diels.

**D. tenuiflora**, Dunn, nom. nov. *Nepeta tenuiflora*, Diels.

**D. Veitchii**, Dunn, nom. nov. *Nepeta Veitchii*, Duthie.

**D. Wilsoni**, Dunn, nom. nov. *Nepeta Wilsoni*, Duthie.

*Scutellaria Cavalericii*, Léveillé in Fedde, Repert. Nov. Sp. viii, 402. Type in Le Mans Herb. = *S. rivularis*, Wall.

*S. Delavayi*, Léveillé l.c. ix, 221. Type in Paris Herb. = *S. sessilifolia*, Hemsl.

*S. Esquirolii*, Léveillé l.c. viii, 402. Type in Le Mans Herb. is a *Melampyrum*.

*S. formosana*, N.E.Br. in Gard. Chron. 1894, ii, 22. = *S. javanica*, Jungh.

**Scutellaria laxa**, Dunn, sp. nov. *S. sciaphilae*, S. Moore affinis, floribus glabris, foliisque acutis distincta.

*Herba* decumbens, foliosa, flaccida, 20–30 cm. longa, ramos paucos axillis inferioribus emittens; *caulis* ut *pedicelli*, *calyces*, *corolla* que parce puberulus. *Folia* oblonga, acuta, basi subcordata, 5–8 cm. longa, membranacea, pilis raris multicellularibus puberula, grosse irregulariter serrata; *venae* utrinque 6–8, divergentes; *petioli* 1 cm. longi. *Racemi* terminales, 6–10 cm. longi. *Flores* singuli, oppositi, 1.5 cm. longi; *pedicelli* 3–4 mm. longi; *bracteae* 1–2 mm. longi, lanceolati. *Calyx* generis, 2 mm. longus. *Corolla* pallide purpurea; *tubus* longe exsertus, *labiis* 5–6-plo longior. *Stamina* inclusa.

YUNNAN. Fêng-chêñ-lin, 8000 ft., February 3, Henry, 13,771.

**S. Tayloriana**, Dunn, sp. nov. *S. discolori*, Colebr., affinis, corolla superne ampliata distincta.

*Herba* perennis, scaposa vel nonnunquam breviter caulescens.

*Rhizoma* parvum, radicibus longis fibrosis. *Folia* saepissime rosulam complanatam formantia, ovato-oblonga, apice rotundata, basi obtusa vel cordata, 5-7 cm. longa, papyracea, breviter hirsuta, crebre crenata; petioli sparse vel dense hirsuti, breves vel saepius laminae aequilongi. *Scapi* 10-20 cm. longi, fere ad basin floriferi, pubescentes. *Flores* bini, subsessiles, bracteis brevibus foliaceis suffulti, 1.5-1.8 cm. longi. *Calyx* generis, sub anthesi 2 mm., fructu 5 mm. longus, subglaber. *Corolla* coerulea, subglabra; tubus longe exsertus, superne dilatatus; labium superius tubo 3-plo brevius, galeatum, emarginatum, inferius aequilongum, trilobum, cum superiore limbum obliquum subaequaliter 4-lobum formans. *Stamina* inclusa.

KWANGTUNG. Tai-mo-shan, Hongkong New Territory, March 1885, *Ford*, 107.

YUNNAN, *Ducloux*, 429; Yunnan-sen, *Maire*, 1630, 2178, 2265 (fl. blues), 2294, 2531.

The plant, like most of the Chinese Scull-caps, has pretty blue flowers. Its range extends from Yunnan in S.W. China to Kwangtung in the S.E., where it grows upon Tai-mo-shan, overlooking the harbour and town of Hongkong. In its name I propose to commemorate the services to local botany of Captain Basil Taylor, R.N., Harbourmaster of Hongkong, and his wife, Harriet Osgood Taylor, the talented authoress of several works upon the artistic side of the Far East. Their companionship and support was greatly valued by the writer while Superintendent of the Botanic and Forestry Department of the Colony.

*S. tuberosa*, Vaniot in *Bull. Acad. Géogr. Bot.* xiv (1904), 188 = *S. amoena*, C. H. Wright.

*Colquhounia decora*, Diels in *Notes Bot. Gard. Edin.* xxv (1912), 240. Type in Edinburgh Herb. = *C. elegans*, Wall.

*C. Seguini*, Vaniot in *Bull. Acad. Géogr. Bot.* xiv (1904), 165. Type in Le Mans Herb. = *C. elegans*, Wall.

*Stachys cardiophylla*, Prain (*S. cordifolia*, Prain in *Journ. As. Soc. Beng.* lix (1890), ii, 310). Type in Kew Herb. = *S. kouyangensis*, Dunn. See below.

*S. Chanetii*, Léveillé in *Fedde, Repert. Nov. Sp.* ix, 222. Type in Le Mans Herb. = *S. chinensis*, Bunge.

*S. Franchetiana*, Léveillé l.c. 246. Type in Kew Herb. = *S. kouyangensis*, Dunn. See below.

*S. hupehensis*, Pamp. in *Bull. Soc. Bot. Ital.* 1911, 176. Type in Florence Herb. = *Lamium chinense*, Benth.

**S. kouyangensis**, Dunn, nom. nov. *Lamium kouyangense*, Vaniot in *Bull. Acad. Géogr. Bot. xiv* (1904), 175.

**S. leptodon**, Dunn, sp. nov. *S. kouyangensi*, Dunn, affinis calycis dentibus lineari-lanceolatis distincta.

*Herba* erecta, ad 2 ped. alta, ubique praeter corollam pilis strigosis superius densioribus et majis glanduliferis vestita. *Folia* ovato-lanceolata, acuta, basi subcordata, 5-7 cm. longa, papyracea, crenato-dentata; petioli inferiores ad 1 cm. longi, florales subnuli. *Flores* subsessiles, in spica foliata interrupta 15-25 cm. longa dispositi, bracteis foliaceis 2-3-plo breviores, 1-5 cm. longi. *Verticillastri* 6-flori, distantes. *Calyx* campanulatus, 8-9 mm. longus; tubus dentibus paullo longior, 5-nervius, ore obliquus; dentes linear-lanceolati, acuminati. *Corolla* pallide purpurea (?), sparse pubescens; tubus cylindricus, rectus, calyci subaequilongus; labia 4 mm. longa, superius angustum, erectum, breviter concavum, inferius latius, trilobum, patens. *Stamina* sub labio superiore inclusa.

YUNNAN. Yunnansen, *Maire*, 88, 182, 1591, 2022.

*S. Martini*, Van. I.c. 187. Type in Le Mans Herb. = *S. oblongifolia*, Benth.

*Lamium coronatum*, Van. I.c. 174. Type in Le Mans Herb. = *Phlomis rugosa*, Benth.

*L. kouyangense*, Van. I.c. 175. Type in Le Mans Herb. is a *Stachys*, q.v.

**Paralamium**, Dunn., gen. nov. *Lamio*, Linn., comparabile, calyci distinctum.

*Calyx* membranaceus, campanulatus, 10-nervis; dentes 5, supremus multo latior, fructu reflexus. *Corolla* tubus exsertus, superne in faucem ampliatus, exannulatus; labia aequilonga, superius erectum, oblongum, brevitur concavum, inferius trilobum, patens. *Stamina* 4, didynama, exteriora longiora, sub galea erecta, parallela approximata, per ciliolis cohaerentia. *Antherae* 2-loculares, loculis primo distinctis, demum confluentibus divaricatis. *Discus* aequalis. *Stylus* apice bifidus, lobis inaequalibus. *Nuculae* laeves, nitidae, compresso-triquetrae, aereola parva basilari.—*Herbae* erectae, foliis amplis crenatis. *Flores* brevipedicellati, in racemis angustis densis paniculatis dispositi.

The most striking characteristic of this plant is its calyx, which resembles those of *Orthosiphon*, *Coleus* and *Teucrium* in its broad upper tooth with recurved decurrent margins and its conspicuously veined membranous tube. The minute basal areole of its nutlet and the form of the corolla abundantly distinguish it from these genera and point to *Lamium* as its affinity.

**P. gracile**, Dunn, sp. nov.

*Herba* perennis, 40-60 cm. alta. *Caulis*, petioli, pedicellique molliter dense hirsuti. *Folia* ovato-cordata, acuminata, ad 20 cm. longa, papyracea, in venis dense, aliter sparse pubescentia; petioli laminas 3-plo breviores. *Paniculae* racemiformes, 10-15

cm. longi, 1.5 cm. latae, paniculatae. *Cymae* parvae, compactae, sessiles, contiguae. *Flores* 9 mm. longi; pedicelli 1 mm. longi; bracteae bracteolaeque minutae. *Calyx* complanatus, 3 mm. longus, pubescens; tubus dentibus bis longior, intus paucisetosus; dentes 5, 4 inferioribus lanceolatis, acutis; supremus late ovatus, truncatus, lateribus in fructu revolutis; calyx fructiferus ampliatus, membranaceus, glabrescens. *Corolla* purpurea, puberula, labiis tubo angusto 3-plo breviores. *Caetera* generis.

YUNNAN. Forests of mountains to S.E. of Mengtze, at 6000 ft. *Henry*, 10,636.

*Loxocalyx Vaniotiana*, Léveillé in Fedde, Repert. Nov. Sp. ix, 224. Type in Le Mans Herb. = *Phlomis rugosa*, Benth.

*Leucas Acloquei*, Léveillé l.c. 222. The type specimens are young, and closely resemble *Stachys oblongifolia*, Benth., in a young condition.

***Phlomis atropurpurea***, Dunn, sp. nov., ab affinibus foliis ovatis obtusis plerumque radicalibus distincta.

*Herba* perennis, 20–30 cm. alta, fere glabra. *Caulis* basi tantum foliatus, infra inflorescentiam glaber. *Folia* late ovata, apice rotundata, basi cordata, sine petiolis 6–9 cm. longa, chartacea glabra, crenata; petioli laminis longiores. *Verticillastri* plures, compacti, distantes, 5–6 cm. lati, bracteis multis linearibus setociliatis suffulti. *Flores* sessiles, 2–2.2 cm. longi, bracteolis o. *Calyx* cylindricus, chartaceus, 1.2 cm. longus, praeter setas paucas in venis et multas in fauce glaber; dentes primarii 5, setacei, 3 mm. longi, et inter eos 5, late triangulares, 1 mm. longi. *Corolla* atropurpurea (collector *dull purplish maroon* scripsit); tubus cylindricus, supra latior, prope basin annulatus; labia tubo bis breviora; superius erectum, arcuatum, margine fimbriatum, intus dense sericeum; inferius patens, trilobum. *Stamina* sub galeam inclusa.

YUNNAN. In open mountain pastures in Lat. 27° 30' N. at 11–12,000 ft. on the eastern flank of the Lichiang Range. August 1910. *Forrest*, 6262.

*P. betonicoides*, Diels in Notes Bot. Gard. Edin. xxv (1912), 241. Type in Edinburgh Herb. = *P. tuberosa*, Linn.

*P. melanantha*, Diels in Notes Bot. Gard. Edin. xxv (1912), 242. Type in Edinburgh Herb. = *P. bracteosa*, Royle.

*P. setifera*, Bur. et Franch. in Journ. de Bot. v, 149. Type in Paris Herb. = *P. bracteosa*, Royle.

*P. Souliei*, Léveillé in Fedde, Repert. Nov. Sp. ix. 222. Type in Kew Herb. = *P. tatsiensis*, Bur. et Franch.

*Microtoena Esquirolii*, Léveillé, and *M. mollis*, Léveillé l.c. Types in Le Mans Herb. = *M. insuavis*, Prain.

**Gomphostemma leptodon**, Dunn, sp. nov. A *G. Scortechinii*, Prain inflorescentia laxiore et a *G. crinito*, Wall. dentibus calycis longioribus et latioribus distincta, aliter his affinis.

*Frutex* 1-1.5 m. altus, erectus, pauciramosus; *caulis* ut *folia* subtus et *calyces* dense stellato-tomentosa. *Folia* late ovata, acuta, subcordata, 15-18 cm. longa, chartacea, crebre erosodentata, supra scabrida; *petioli* nonnunquam dimidium foliorum superantes. *Cymae* axillares, contiguae vel distantes, 6-8 cm. longi, sessiles. *Flores* 2-2.5 cm. longi; *pedicelli* 8 mm. longi; *bracteae* lineares aequilongae. *Calyx* 1.5 cm. longus, fructu auctus, anguste campanulatus; dentes tubo tandem bis longiores, linearis-triangulares, acuminati, aequilongi. *Corolla* 2.3 cm. longa, extus puberula; *tubus* inferius angustus, supra dimidium inflatus, apice bilabiatus; *labium* superius 6 mm. longum, rotundatum, erectum; inferius aequilongum, trilobum. *Stamina* inclusa. *Nuculae* 3-4 mm. longae, opacae.

KWANGSI, Lungchow, A-chin Mts., February, *Morse*, 257.

INDO-CHINA, Tonkin, Dang-dang, among bushes, February 1886, *Balansa*, 1000.

**G. microdon**, Dunn, sp. nov. *G. strobilino*, Wall., affinis, dentibus calycis brevissimis distincta.

*Frutex* 2 m. altus. *Caulis* ut *pagina* inferior foliorum, *bracteae* calycesque stellato-tomentosus. *Folia* ovata, acuta, basi obtusa, 15-20 cm. longa, papyracea, supra scabra, crebre minute erosodentata; *petioli* 2 cm. longi. *Racemi* axillares, 10-14 cm. longi. *Flores* singuli, oppositi, approximati, *bracteis* parvis foliaceis suffulti, 2 cm. longi; *pedicelli* 2 mm. longi, ut calyces vestiti; *bracteae* 1.5-2.0 cm. longae, contiguae, superiores minores. *Calyx* anguste campanulatus, 5 mm. longus; dentes vix 1 mm. longi, lati. *Corolla* albo-rubra, anguste tubulosa, fauce ampliata ibique 7 mm. lata, extus puberula, bilabiata; *labia* tubo 4-plo breviora; superius rotundatum, erectum; inferius aequilongum, trilobum. *Stamina* inclusa. *Nuculae* 3-4 mm. longae, opacae, pauci-glandulosae.

YUNNAN. Forest west of Szemao at 4500 ft. *Henry*, 12,501.

*Hancea Hemsleyana*, Léveillé in Fedde, Repert. Nov. Sp. ix, 223. Type in Le Mans Herb.=*Plectranthus macranthus*, Hook. f.

**H. nudipes**, Dunn, nom. nov. *Plectranthus nudipes*, Hemsl.

*H. Prainiana*, Léveillé l.c. Type in Le Mans Herb. is a *Plectranthus* (*P. Prainianus*, Dunn).

*Teucrium alborubrum*, Hemsl. in Journ. Linn. Soc. xxvi (1890), 311. Type in Kew. Herb.=*T. Pernyi*, Franch. The type of *T. Pernyi*, Franch., was apparently not seen by Hemsley

before publishing the above species. Both his localities for *T. Pernyi* are given on Franchet's authority, and the note "Herb. Kew" was probably inadvertant. It is certainly not now in the Herbarium. The type now borrowed from Paris agrees exactly with Hemsley's species. It will be observed with regard to the flowers of this genus that the relative position of the side lobes to the lower lobe of the corolla changes in some species during the period between the opening and withering. The upper, middle and trifid lower lobes are in these cases at first analogous, but later by the drawing forward of the middle or side lobes the appearance is produced of a bilabiate corolla with a pinnatifid lower lobe.

*T. Franchetianum*, Diels in Engl. Jahrb. xxix (1901), 551. Type in Christiania Herb. = *T. ornatum*, Hemsl.

*T. fulvo-aureum*, Léveillé in Fedde, Repert. Nov. Sp. viii (1910), 426. Type in Le Mans Herb. = *T. quadrifarium*, Buch.-Ham.

*T. kouytchense*, Léveillé l.c. 450. Type in Le Mans Herb. = *T. quadrifarium*, Buch.-Ham.

*T. nepetoides*, Léveillé l.c. 450. Type in Le Mans Herb. = *T. japonicum*, Willd.

*T. ningpoense*, Hemsl. in Journ. Linn. Soc. xxvi (1890), 313. Type in Kew Herb. = *T. Pernyi*, Franch.

*Leucosceptrum Bodinieri*, Léveillé in Fedde, Repert. Nov. Sp. ix, 224 = *L. sinense*, Hemsl.

*Ajuga Chaneti*, Léveillé et Vaniot in Fedde, Repert. Nov. Sp. viii (1910), 258 = *A. ciliata*, Bunge.

*A. Labordei*, Vaniot in Bull. Acad. Géogr. Bot. xiv (1904), 185 = *A. genevensis*, Linn.